

REMARKS

1. CLAIM AMENDMENTS

Claims 1–14 were pending in the application. Claim 2 has been canceled without prejudice in the present amendment. Claims 1, 3 and 14 have been amended and claims 15–18 have been added to clarify Applicant's invention. Support for the claim amendments and new claim is found in Figs. 1 to 3, and the corresponding description in the specification. No new matter has been added. Upon entry of the present amendment, claims 1 and 3–18 will be pending.

2. THE REJECTIONS UNDER 35 U.S.C. § 102 SHOULD BE WITHDRAWN

Claims 1, 4–7 and 12–13 are rejected under 35 U.S.C. § 102(b), as allegedly being anticipated by US 2002/0033908 to Mori *et al.* (the "Mori '908 publication"). Applicants traverse the rejection on the basis of the claims as amended.

The instant invention provides a thin, light-weight display unit with a simplified structure, which exhibits low power consumption and long life. (*See* application, *e.g.*, p. 9, ll. 4 – p. 10, ll. 2.) The instant invention also provides a display unit with fewer numbers of parts, and which requires fewer manufacturing processes, thus reducing manufacturing costs and complexity. (*See* application, *e.g.*, p. 9, ll. 2 – 11.) As recited in independent claim 1, the display unit comprises a liquid crystal display, an organic electroluminescent display, a reflector, a plurality of common electrodes and a plurality of control elements located between two substrates, wherein each control element corresponds to one of the common electrodes. (*See*

application, *e.g.*, p. 3, ll. 8 – 21.) The common electrodes activate both the liquid crystal display and the organic electroluminescent display, which simplifies the structure of the display unit. (*See* application, *e.g.*, p. 9, ll. 2 – 11.) In addition, the reflector comprises a single reflective electrode that corresponds to all of the common electrodes, which also simplifies the structure of the display unit. (*See* application, *e.g.*, Fig. 1, and p. 5, ll. 9 – 11.) The pixels of the display unit correspond to each of the common electrodes. The display unit of the present invention is capable of operating as a reflective liquid crystal display unit and as an organic electroluminescent display unit. (*See* application, *e.g.*, p. 8, ll. 11 – 31.)

The Mori '908 publication does not teach or suggest the simplified display unit of Applicants' claims 1, 4-7 and 12-13. Rather, the Mori '908 publication teaches a liquid crystal display device comprising an intricate patterning of electrodes. In particular, the Mori '908 publication discloses three sets of orthogonally disposed electrodes, where the first electrodes 3 “are formed in such a manner that these extend in the y direction in the drawing and are parallel-provided in the x direction,” the second electrodes 5 “extend in the x direction in the drawing and are parallel-provided in the y direction,” and the pixel electrodes 9 “extend in the y direction in the drawing and are parallel-provided in the x direction.” (*See* the Mori '908 publication, *e.g.*, ¶¶ 0024, 0026, and 0032.) In addition, there is a constraint on the pixel electrode 9 “such that its width and a distance with respect to other neighboring pixel electrodes 9 are substantially the same as those of the first electrode 3; additionally, it is formed to overlap the first electrode 3

when planarly viewing.” (See the Mori ’908 publication, e.g., ¶ 0033.) Since the display unit of the Mori ’908 publication requires a plurality of reflective electrodes 3, the structure of the display unit is more complicated than Applicants’ claimed invention. More costly manufacturing and processing step would be required to create such a structure, thus adding to the manufacturing costs. In addition, since the arrangement of the reflective electrodes 3 is complicated, applying voltages to the reflective electrodes 3 is also complicated. Applicants respectfully submit that the Mori ’908 publication does not teach or suggest the simplified display unit of Applicants’ claims, therefore claim 1 is not anticipated by the Mori ’908 publication. Applicants also respectfully submit that dependent claims 4–7 and 12–13, which include the limitations of independent claim 1, are similarly not anticipated by the Mori ’908 publication.

In view of the foregoing, the rejection of claims 1, 4–7 and 12–13 under 35 U.S.C. § 102(b), as anticipated by US 2002/0033908 to Mori *et al.* should be withdrawn.

3. THE REJECTIONS UNDER 35 U.S.C. § 103 SHOULD BE WITHDRAWN

Claims 2–3, 8–11 and 14 are rejected under 35 U.S.C. § 103(a), as allegedly being obvious over US 2002/0033908 to Mori *et al.* Applicants traverse the rejection on the basis of the claims as amended.

The Examiner contends that “it is well known to combine TFT switches with liquid crystal displays in order to improve resolution and reduce crosstalk.” The Examiner

further contends that "it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the well known TFT switches with 908." Applicants respectfully disagree with the Examiner's contentions. Applicants submit that the Mori '908 publication does not teach or suggest Applicants' claimed subject matter. Applicants also submit that one of ordinary skill in the art would find *no motivation* in the Mori '908 publication to produce Applicants' claimed subject matter based solely on the Mori '908 publication disclosure. Moreover, one of ordinary skill in the art would not have been motivated to produce Applicants' claims, because the Mori '908 publication teaches away from Applicants' claimed subject matter.

Applicants' claims are not obvious over the Mori '908 publication, because it does not teach or suggest Applicants' claimed invention. To establish a *prima facie* case of obviousness, the prior art reference must teach or suggest all the claim limitations. *M.P.E.P. 2143*. As explained above, the Mori '908 publication does not teach or suggest a plurality of common electrodes and a plurality of control elements located between two substrates, wherein each control element corresponds to one of the common electrodes. (*See* application, *e.g.*, p. 3, ll. 8 – 21.) In addition, the Mori '908 publication does not teach or suggest a reflector comprising a single reflective electrode that corresponds to all of the common electrodes. (*See* application, *e.g.*, p. 5, ll. 4 – 15.) Therefore, Applicants' claims 2-3, 8-11 and 14 are not obvious over the Mori '908 publication.

In addition, Applicants' claims are not obvious over the Mori '908 publication, because one of ordinary skill in the art would not be motivated to produce Applicants' claimed subject matter based on the disclosure of the Mori '908 publication. Moreover, Applicants submit that one of ordinary skill in the art would not be motivated to produce Applicants' claimed subject matter, because the Mori '908 publication teaches away from the simplified structure and operation of Applicants' display unit. Specifically, the Mori '908 publication teaches using a complicated pattern of electrodes to both define the pixel region and to drive the display elements. (See the Mori '908 publication, e.g., ¶¶ 0024 and 0038.) As a result, the structure for applying voltage to the reflective electrodes 3 is complicated. For example, the Mori '908 publication teaches:

"applying a voltage (e.g. 3 to 7V with respect to the voltage being applied to the second electrodes 5) to all the first electrodes 3, sequentially supplying a scan signal voltage to the second electrodes 5 along the parallel provision direction thereof, and substantially simultaneously supplying an image signal voltage to a respective one of the pixel electrodes 9 in a way synchronous with such timing."

(See the Mori '908 publication, e.g., ¶ 0038.) In relying on such a complicated array of electrodes and teaching the voltage structure to operate such an electrode structure, the Mori '908 publication actually teaches away from Applicants' claims. One of ordinary skill in the art would find no motivation in the Mori '908 publication to change the multiple reflective

electrodes required in the Mori '908 publication into the single reflective electrode of Applicants' claims, because the multiple reflective electrodes are essential to the operation of the display device of the Mori '908 publication. Additionally, one of ordinary skill in the art would find no motivation in the Mori '908 publication to introduce a plurality of control elements corresponding to a plurality of common electrodes, since the Mori '908 publication also teaches the voltage structure to operate such an electrode pattern.

By contrast, Applicants have devised a simplified display unit comprising a single reflective electrode, and a plurality of common electrodes, each of which correspond to a plurality of control elements. Applicants have discovered that this simplified display unit structure allows for simpler manufacturing and processing steps and reduced costs. In addition, since a control elements corresponds to each of the common electrodes, the voltage structure applied to Applicants' display unit is simplified. (*See* application, *e.g.*, p. 8, ll. 11 – 31.) Applicants have developed a display unit which does not need to rely on a complicated patterning of the electrodes in order to form the pixels, or to operate the display unit. Thus, Applicants submit that Applicants' claimed subject matter would not have been obvious to a person skilled in the art at the time the invention was made, based on the disclosure and suggestion of the Mori '908 publication.

In view of the foregoing, the rejection of claims 2–3, 8–11 and 14 under 35 U.S.C. § 103(a) as obvious over US 2002/0033908 to Mori *et al.* should be withdrawn.

Serial No. 10/615,692
Response dated April 14, 2005
Response to Office Action of December 14, 2005

Docket No. 5000-5114

3. REQUEST FOR FILING RECEIPT

To date, Applicants have not received a Filing Receipt for the subject application. Furthermore, the Patent Office's Public PAIR access site indicates that no Filing Receipt has been issued. Applicants hereby request the issuance of a Filing Receipt for the subject application.

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CONCLUSION

Applicants respectfully request entry of the foregoing amendments and remarks into the file of the above-identified application. Applicants believe that each ground for rejection has been successfully overcome or obviated, and that all pending claims are in condition for allowance. Withdrawal of the Examiner's rejections, and allowance of the application, are respectfully requested.

AUTHORIZATION

No fee is believed due in connection with this response. In the event that a fee is required for consideration of this Amendment, please charge any additional fees to Deposit Account No. 13-4500, Order No. 5000-5114. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

Respectfully submitted,
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Dated: April 14, 2005

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